

REMARKS***Introduction***

Receipt of the Office Action mailed February 5, 2003. The present amendment clarifies the specification on page 8 to delete "0.1%" and insert therefore, "0.01%" as in original claim 2. Claims 1, 5 and 6 have been amended in formal regards. No new matter has been added. Entry of the amendment and favorable reconsideration are earnestly solicited. Claims 1-8 remain pending for reconsideration.

The Office Action**The Restriction Requirement**

On page 2 of the Action, claim 8 has been withdrawn from consideration as being directed to a nonelected invention. Reconsideration is respectfully requested as claim 8 depends from claim 1 and includes all the features thereof. Namely, a search of a product by process claim necessarily involves the same search as that for the process by which the product is made. Under the spirit of the *In re Ochiai* guidelines, products and processes of the same scope should be examined together in the same application. Reconsideration and/or rejoinder of claim 8 after indication of allowable subject matter is respectfully requested.

Claim Objection and Rejections

The Examiner has objected to certain claims based on informalities. It is respectfully submitted that these informalities have been corrected by the instant amendments to the claims and the specification at page 8.

Claims 1-7 stand rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Sontgerath et al. (U.S. Patent 6,294,272) in view of either Merchant et al. (U.S. Patent 4,517,034) or Papich et al. (U.S. Patent 5,476,725).

In asserting this rejection, the Examiner states,

Sontgerath discloses a process for producing an aluminum alloy core for use in a brazing sheet which includes the steps of casting the desired alloy, homogenizing at a time and temperature as presently claimed (see Sontgerath col. 6, lines 39-42), cladding a second alloy to the core alloy where the second alloy has a silicon content as recited in instant claim 3 (see Sontgerath col. 7,

lines 1-3), hot rolling, cold rolling, and annealing at a temperature as presently claimed (see Sontgerath col. 7, line 51).

Sontgerath differs from the claimed invention in that Sontgerath does not disclose a strain hardening step s required by the instant claims, and the alloy used on Sontgerath contains a higher percentage of chromium and zirconium than used in the claimed process. These differences are not seen as resulting in a patentable distinction between the prior art and the claimed invention because:

(a) The disclosures of Merchant and Papich et al. indicate it to be conventional in the art to strain harden 3000 series aluminum alloys which have been cast, homogenized, hot and cold rolled and annealed; see Merchant col. 1, lines 22-59 or Papich col. 2, lines 8-26. In particular, the Papich reference is drawn to the production of alloys for use in making brazed assemblies, i.e. the same intended use as those of Sontgerath. Thus, to incorporate a final strain hardening step into the process of Sontgerath would have been considered obvious by a person of ordinary skill in the art.

(b) the instant claims are drawn to a process of manufacture, and the actual process steps used by Sontgerath are analogous to those presently claimed, regardless of the alloy composition. It is further noted that the Sontgerath alloys are aluminum alloys containing amounts of silicon, iron, copper, manganese, magnesium and titanium which significantly overlap the alloys used in the claimed process (note particularly alloy no. 6 in Table 1 of Sontgerath), and one of ordinary skill in the art would expect to achieve success in applying similar process steps as done by Sontgerath to alloys containing differing amounts of minor elements.

Consequently, the disclosure of Sontgerath, together with those of Merchant et al. or Papich et al., would have taught the presently claimed invention to a person having ordinary skill in the art.

Applicants respectfully disagree with the rejection for at least the following reasons. Namely, Sontgerath fails to teach or suggest strain hardening an annealed strip to obtain a permanent deformation between 2 and 10% of the final thickness. A strain hardening leading to slight deformation of between 2 and 10% is not conventional for this type of product, and is not taught or suggested by Sontgerath or any of the secondary references being relied upon by the Patent Office.

Merchant discloses a strain hardening step to obtain a substantially full hard temper referenced as H19 (col. 1, line 39). Such a temper is much harder than H14 mentioned as suitable in the present specification. That is, the strain hardening step of Merchant would not lead to a permanent deformation between 2 and 10% in a clad and annealed strip according to claim 1. This is quite apparent since Merchant's disclosure is directed to a totally different product: canstock. The present claims are directed to clad strips suitable for use in the manufacture of brazed heat exchangers.

Papich also fails to teach or suggest the invention as claimed. In col. 2, second and third paragraphs, Papich defines H1x or H2x tempers. These designations are well-known in the art. Papich prefers to employ strain hardening to H24 temper (see col. 7), which would fail to obtain a permanent deformation between 2 and 10% as claimed in claim 1.

Applicants also wish to point out the separate patentability of certain of the dependent claims that are patentable over the references for the reasons advanced above, and further for the following separate reasons. For example, with respect to instant claim 2, Sontgerath requires an addition of chromium and zirconium at a content higher than 0.1% (claim 2 recites less than 0.01%).

Claims 1-7 have also been rejected under the judicially created doctrine of obviousness-type double patenting as allegedly being unpatentable over claims 8, 15 and 21 of U.S. Patent No. 6,451,453 in view of either Merchant et al. or Papich et al. This rejection is respectfully traversed. The cited claims of the '453 patent, while being directed to a process for making a strip for use in a brazed heat exchanger made of an alloy, fail to teach or suggest a strain hardening step as instantly recited. Merchant and Papich fail to provide for this deficiency for the reasons advanced above. Namely, Merchant and Papich do not stand for the proposition that it is conventional in the art to subject 3000 series aluminum alloys (i.e. alloys similar to those used in the process of the '453 claims) to a final strain hardening step as instantly recited.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. According, the Examiner is respectfully requested to pass this application to issue.

Application No.: 09/987,699

Docket No.: 22130-00006-US

Applicant hereby authorizes the Commissioner to charge our Deposit Account No. 22-0185, under Order No. 22130-00006-US in the amount of \$410, and other fees deemed necessary, from which the undersigned is authorized to draw.

Dated: July 3, 2003

Respectfully submitted,

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